



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATIONS STATUS CHANGE SUMMARY

Report:	West Fertilizer Fire and Explosion
Recommendation Numbers:	2013-2-I-TX-R11 2013-2-I-TX-R12
Date Issued:	January 28, 2016
Recipient:	Texas Commission on Fire Protection (TCFP)
New Status:	Open – Acceptable Response or Alternate Response
Date of Status Change:	May 19, 2016

Recommendation(s) Text:

CSB Recommendation No. 2013-02-I-TX-R11:

Develop minimum standards for course curricula to include hazard awareness of fertilizer grade ammonium nitrate (FGAN) for those fire departments that either have FGAN facilities in their jurisdictions or respond as mutual aid to other jurisdictions with FGAN facilities. In addition, develop a training program specific to FGAN.

Objectives of the program's training course should address the following:

- a) Previous FGAN fire and explosion incidents, incorporating lessons learned*
- b) Hazards posed by other materials and chemicals stored near FGAN, including FGAN incompatibility with those materials and chemicals*
- c) Pre-incident planning for fires involving FGAN*
- d) On-scene emergency response and decision-making requirements for FGAN fires, including risk assessment, scene size-up, and situational awareness*
- e) National Incident Management System and Incident Command System.*

CSB Recommendation No. 2013-02-I-TX-R12:

Implement outreach to regional, state, and local fire departments that either have FGAN facilities in their jurisdictions or respond as mutual aid to jurisdictions with FGAN facilities, informing them about the new FGAN training certification requirements and opportunities to receive training. Include the following in the outreach:

- a. Guidance for fire departments on how to identify FGAN hazards within their communities by engaging State Emergency Response Commissions and Local Emergency Planning Committees*
- b. Encouragement for fire departments in jurisdictions with FGAN facilities to become certified in FGAN training.*

Board Status Change Decision:

A. Rationale for Recommendation

On the April 17, 2013, an explosion and fire occurred at the West Fertilizer Company (WFC), a fertilizer blending, retail, and distribution facility in West, Texas. The violent detonation of fertilizer grade ammonium nitrate (FGAN) fatally injured 12 emergency responders and three members of the public. Local hospitals treated more than 260 injured victims, many of whom required hospital admission. The

blast completely destroyed the WFC facility and caused widespread damage to more than 150 offsite buildings.

As part of its investigation, the CSB found that state of Texas curriculum manual used for hazardous materials (HAZMAT) training and certification of firefighters placed little emphasis on emergency response to storage sites containing FGAN. In addition, lessons learned from previous FGAN-related fires were not shared with other fire departments, including the West Volunteer Fire Department. If previous lessons learned had been applied at West, the firefighters and emergency personnel who responded to the incident might have better understood the risks associated with FGAN-related fire. As a result, the CSB made two recommendations to the Texas Commission on Fire Protection (TCFP), to develop minimum standards for course curricula on hazard awareness of FGAN and to implement outreach to regional, state and local fire departments with FGAN facilities.

B. Response to the Recommendations

With regard to **2013-02-I-TX-R11**, TCFP stated that they will work with the Texas A&M Extension Services (TEEX,) which is currently developing an FGAN training course, and will review the course upon completion to ensure it meets the intent of the recommendation and National Fire Protection Association (NFPA) guidelines. The CSB found that the draft curriculum provided by TEEX appeared to meet the intent of the recommendation, and recently voted to move the recommendation to TEEX to “Open – Acceptable Response or Alternate Response (2013-02-I-TX-R15, NI 2016-37). They stated they will then assist in providing this training to fire departments.

With regard to **2013-02-I-TX-R12**, TCFP stated that they currently maintain a fire protection library with both print and audio/visual resources which are available to any organization or individual in Texas. TCFP stated that they will direct their librarian to identify training resource currently available relating to FGAN characteristics, hazards and response. TCFP stated that once identified, they will implement outreach efforts via their website, social media and other venues to inform organizations of their availability. TCFP also stated that they have directed their librarian to locate other resources and reference materials outside the TCFP library, to procure those as they are able, and research other opportunities for FGAN training.

C. Board Analysis and Decision

As TCFP has shown intent to implement these recommendations, the Board voted to change the status of both Recommendation Nos. **2013-02-I-TX-R11** and **2013-02-I-TX-R12** to: “**Open – Acceptable Response or Alternate Response.**”